

Name _____

Period _____

Elements, Compounds & Mixtures

Identify each of the following as an element, compound or mixture. Use the letters E -element, C – compound, Hm for homogeneous mixture & Ht form heterogeneous mixture.

_____ 1. soda pop (Coke)

_____ 6. black coffee

_____ 2. cherry vanilla ice cream

_____ 7. sugar water

_____ 3. aluminum

_____ 8. beach sand

_____ 4. soil

_____ 9. iron

_____ 5. sugar

_____ 10. hot chocolate

States of Matter

Complete the table by placing a check mark in the correct column.

Characteristics	Solids	Liquids	Gases	Plasma
Has a definite shape & volume				
Has no definite shape, but has a definite volume				
Has no definite shape & no definite volume				
Will take the shape of its container				
Particles will expand to fill all available space				
Particles are packed tightly & "locked" in place				
Particles are close together, but freely move around				
Exists in stars & fire				
Water at 0 C (Frozen)				
Water at 100 C (Boiling/ Vapor)				
Water at 50 C (Room Temp.)				

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Part 1 - Substances vs. Mixtures

A substance is matter for which a chemical formula can be written. Elements & compounds are substances. Mixtures can be in any proportion & the parts are NOT chemically bonded. Identify any substance as an element (E) or a compound (C) & any mixture as homogeneous (HMM) or heterogeneous (HTM).

_____ 1 - Bar of Gold

_____ 6 - raisin bran cereal

_____ 2 - water

_____ 7 - iron

_____ 3 - salt water

_____ 8 - sugar

_____ 4 - soil

_____ 9 - aluminum

_____ 5 - coffee
with cream

_____ 10 - granola bar

Part 2 - Solutions, Colloids & Suspensions

Identify each of the following as a solution (SOL), colloid (COL) or suspension (SUS).

_____ 11 - sugar water

_____ 14 - coffee with cream

_____ 12 - smoke

_____ 15 - chicken noodle soup

_____ 13 - paint

_____ 16 - kool-aid

Part 3 - Vocabulary

Match the terms in Column II with the definitions in Column I. Write the letter in the blank.

_____ 17 - heterogeneous mixture containing a liquid in which visible particles never settle.

A - colloid

_____ 18 - contains 2 or more gaseous, liquid or solid substances blended evenly throughout the mixture.

B - compound

_____ 19 - substance in which all atoms are alike

C - element

_____ 20 - any material made of 2 or more substances that can be physically separated

D - heterogeneous mixture

_____ 21 - the scattering/ blocking of light by colloidal particles

E - homogeneous mixture

_____ 22 - heterogeneous mixture with large particles that settle.

F - mixture

_____ 23 - a mixture in which different materials can be easily distinguished

G - solution

_____ 24 - homogeneous mixture of particles so small they cannot be seen & will never settle out

H - suspension

_____ 25 - substance in which 2 or more elements are combined in a fixed proportion.

I - Tyndall effect